REMARKS

Claims 1-5, 18-20, 27, 28, 32, 41, 48-50, 55, 56, 75, 61-64, 75, 87, 90, 92 and 94 were rejected under 35 U.S.C. 103(a) as unpatentable over Nakano (U.S. Patent No. 6,442,149) in view of Raychaudhuri (U.S. Patent No. 5,638,371). Claims 7-9, 15, 42, 43, 66-68, 72, 76, 77, 88, 89, 91 and 93 were rejected under 35 U.S.C. 103(a) as unpatentable over Nakano in view of Raychaudhuri and further in view of Dail (U.S. Patent No. 5,953,344). Claims 6, 22, 46, 47 and 65 were rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano in view of Raychaudhuri, Dail, and further in view of Yuen (U.S. Patent No. 5,995,092). Claims 16, 25, 30, 39, 53, 59, 73 and 85 were rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano, in view of Raychaudhuri and further in view of Sugita. Claims 17, 26, 31, 40, 54, 60, 74 and 86 were rejected under 35 U.S.C. 103(a) were rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano in view of Raychaudhuri and further in view of Leano.

Nakano describes a method for transmitting ATM cells from a base station to a mobile services switching center in a mobile communication system. A delay time for generating and sending out a cell is minimized as much as possible by "periodically transmitting a frame consisting of cell slots prepared to send ATM cells." (column 1, lines 38-43) "To transmit the three calls a, b and c over the same channel, transmitted frames 200-1--200-4 are prepared in the transmitted frame assembler/disassembler 104. Each transmitted frame includes transmitted slots such as 201-1--201-3 for transferring the ATM cells corresponding to the calls. The transmitted frames are generated by the transmitted frame assembler/disassembler 104 at every interval T to be sent over the channels." (column 4, lines 5-12) "The calls a, b and c are controlled such that they are generated with their phase shifted by T/3 interval as shown in FIG. 3, thereby being placed on the frame without delay. Thus generating the calls with their phase shifted makes it possible for the information of the calls to be assembled into the transmitted frames and transferred at the interval T without delay or collision." (column 4, lines 13-19).

Raychaudhuri describes a wireless ATM system that provides support of ATM services. A mechanism is provided for the dynamic allocation of subframe capacities, assignment of slots based on queueing rules, traffic shaping parameters, and bandwidth requirements. (Abstract)

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By contrast, neither Nakano nor Raychaudhuri nor any other ATM communication systems describe "allocating grants" or providing "grant allocation elements" to various nodes as is variably recited in the independent claims 1, 18, 27, 32, 41, 55, 61, 75, 87, 90, 92 and 94. Furthermore, it would not be obvious to allocate grants or provide grant allocation elements because ATM networks including the ATM networks of Nakano and Raychaudhuri do not use grants to allow for communication. A base station in Nakano merely assembles frames and schedules frames for transmission. In Nakano, the frames are phase shifted by a T/3 interval to "allow for transmission without delay or collision." (column 4, lines 13-17).

However, the independent claims all use "grants". In one example, "Whenever a cable modem wishes to send data upstream, it first sends a time slot request to the head end, clearly specifying the size of the time-slice it needs to send the data packet. The head end then schedules a data grant for this cable modem at some later time on the upstream channel." (page 18, lines 24-27) In one case, "the cable modem, on receiving the grant transmits its data during its allotted time slice." (page 5, lines 24-25) The use of grants is described else in the specification as well. In one example, "When the CMTS receives a time slot request for a data grant by a particular cable modem, the CMTS responds by issuing one or more data grant minislots to the requesting cable modem." (page 20, lines 3-5)
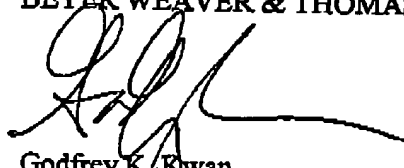
Certain networks such as hybrid fibre coaxial networks use grants while other networks such as ATM networks do not use grants. A node in an ATM network such as the Nakano or Raychaudhuri ATM network attempting to use grants would be an incompatible and inoperable node in the ATM network. Consequently, it would not be obvious to use grants in the networks described in Nakano or Raychaudhuri. Because neither Nakano nor Raychaudhuri teach or suggest allocating grants or providing grants as is variably recited in the independent claims, and because using grants in a node in a Nakano or Raychaudhuri network would render the node and possibly the network inoperable, it is respectfully submitted that the independent claims are patentable over Nakano in view of Raychaudhuri for at least the reasons stated.

In view of the remarks noted above, the Applicants believe the rejections to the base claims 1-5, 18-20, 27, 28, 32, 41, 48-50, 55, 56, 75, 61-64, 75, 87, 90, 92 and 94 have been traversed thereby placing the remaining dependent claims 6-17, 21-26, 29-31, 33-40, 42-47, 51-54, 57-74, 76-86, 88-89, 91, and 93 in condition for allowance in their present form for at least the reasons noted above.

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In view of the foregoing, Applicants believe all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (510) 843-6200.

Respectfully submitted,

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